## STATE OF UTAH GENERAL OUTLOOK May 1, 2005

### **SUMMARY**

April of 2005 saw some interesting climate in various places in Utah, but for the most part, it was near average. In the north, an area which has some of the lowest snowpack, intense precipitation caused some high flows in both Cache and Box Elder counties. Precipitation events of this kind pose an elevated risk statewide over the next 30 to potentially 60 days as snowmelt brings streams to higher levels and soil moisture to near saturated conditions. Fortunately, current conditions are substantially lower than conditions found in May of 1983, the generally recognized flood year. Most low elevation snowpacks are melted out as well as a portion of the mid elevation. In 1983, both of these areas were still accumulating snowpack during the early part of May and this could well take the edge off of potentially high flows yet to come this year. Higher elevation snowpack continue to accumulate snow. Overall, water supply conditions are improving statewide. Snowpacks range from 102% over the Bear River Watershed to 294% over southwest Utah. None of the basin snowpack averages are now in record territory but many individual sites have shattered all time record maximum snowpack totals. Low elevation snowpacks are much less than we have seen in other large years due mainly to relatively mild temperatures this winter. With large snowpacks in southern Utah and the Uintah basin, comes the potential for very high snowmelt streamflow. For some streams like Coal Creek which has over 69 inches of water yet to melt and has broken the old maximum record snowpack by nearly 15 inches of snow water equivalent, it is likely not if, but merely when the high flows will occur. While many outcomes remain possible in these areas, it is prudent to begin preparation for potentially high snowmelt streamflow this spring, likely within the next 4 weeks. Precipitation for April was exactly average statewide at 100%. Northern Utah ranged from 78% to 113% and southern Utah had 78% to 132% of average. This brings the seasonal precipitation, (Oct-Apr) to 133%. Estimates of soil moisture range from about 47% to 94% of saturation in the upper 24 inches of soil. Low reservoir storage is becoming less of a concern with total reservoir storage at 53% of capacity, up 4% from last year. All reservoirs statewide should fill except Bear Lake, Utah Lake, Strawberry and Scofield Reservoir. The area of greatest drought concern is the Bear River with current reservoir storage at only 13% of capacity. Areas that could have high streamflows include the Uintah Basin, southeast Utah, Escalante, upper Sevier and the Virgin. Streamflow forecasts range from 58% to 351% of average. Surface Water Supply Indices range from 4% on the Bear River, to 95% on the Virgin.

#### **SNOWPACK**

May first snowpacks as measured by the NRCS SNOTEL system range from 102% on the Bear to 294% in southwestern Utah. Most snowpacks in northern Utah are 236% to 280% higher than last year, whereas the Uintah Basin and everything south of Salina have 270% to 429% of the snowpacks of last year. The Midway Valley SNOTEL site currently has 69.1 inches of snow water equivalent and its May 1 average is only 23.2 inches. Of some concern are low elevation snowpacks across the state, which are below average. Overall, snowpacks are much improved from years past.

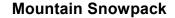
#### **PRECIPITATION**

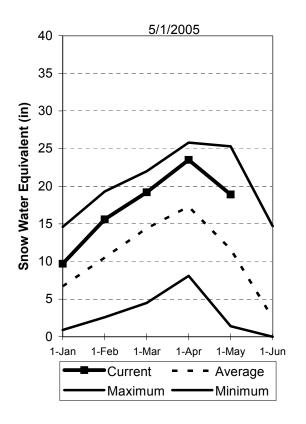
Mountain precipitation during April was 100% of average statewide. Precipitation was lower on the North Slope and the South East (78%) and a little higher over the South West at 132% of normal. This brings the seasonal accumulation (Oct-Apr) to 133% of average statewide.

### RESERVOIRS

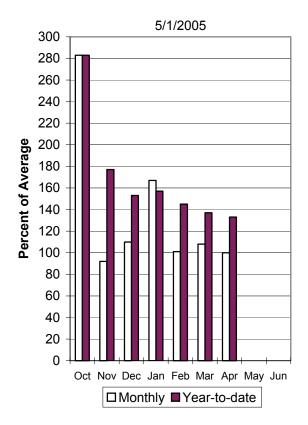
Storage in 41 of Utah's key irrigation reservoirs is at 53% of capacity. This is an increase of 4% from last year. Reservoirs across the State have been making steady gains in storage. Larger reservoirs such as Bear Lake and Utah Lake remain low. Most reservoirs should fill this year.

Snowmelt streamflows are expected to be below average to much above average and even into record flows across the state of Utah this year. Forecast streamflows range from 58% on the Bear at Stewart dam to 352% on the Virgin. Most flows are forecast to be in the 100% to 160% range. Overall water supply conditions are improving.





# **Precipitation**



# Statewide Reservoir Storage 5/1/2005

